3.11 PUBLIC UTILITIES

The purpose of this section is to:

- Describe the existing public utilities and service systems that would serve the proposed project,
- Identify potential impacts related to public utilities and service systems that could occur with the construction and operation of the proposed project, and
- Identify corresponding mitigation measures to avoid, minimize or reduce potentially significant impacts.

This section contains analysis based on consultation with affected public utility providers. The following public utility providers were consulted:

- Lodi Electric Utility
- Pacific Gas & Electric Company
- Lodi Water Utility
- City of Lodi Public Works Department
- Central Valley Waste Services
- San Joaquin County Public Works Department, Solid Waste Division

These public agencies and departments provided relevant information through telephone communications and written letters. Other resources, references, and documents used to prepare this section of the EIR are identified both within this section and Section 10.0, References Cited and Personal Communications.

3.11.1 ENVIRONMENTAL SETTING

Electric Services

The Lodi Electric Utility provides electrical services to the City of Lodi. The Lodi Electric Utility is a customer-owned and city-operated utility that provides electrical services for residential, commercial, and industrial customers in the City of Lodi.

The Lodi Electric Utility is a member of the Northern California Power Agency (NCPA). The NCPA is a group of customer-owned utilities that own and operate their own power plants. The NCPA is a California Joint Action Agency and its membership is open to municipalities, rural electric cooperatives, irrigation districts and other publicly owned entities interested in the purchase, aggregation, scheduling and management of electrical energy. The NCPA allows the Lodi Electric Utility to purchase and supply electricity at minimal costs. This cost saving is passed directly to the consumers, which generally receive lower costs than customers in neighboring communities that are served by investor-owned utilities.

The NCPA owns and operates a variety of electric generation facilities. These facilities include:

- Five quick-response combustion turbine units (G.E. frame 5). The units are located in the cities of Alameda, Roseville, and Lodi. These units provide reserve capacity, spinning reserves, and peaking energy sources.
- A 49 megawatt steam-injected gas turbine plant located near Lodi.
- A hydroelectric project on the North Fork of the Stanislaus River. The Project generates 250 megawatts of power and includes the New Spicer Meadow Dam and Reservoir, two diversion dams and tunnels, the McKay's Point Reservoir, a power tunnel to the main powerhouse, one of two powerhouses, and two transmission lines.
- Two geothermal power plants and the associated steam fields. The two geothermal power plants produce 147 megawatts of power.

A total of 12 NCPA members, including the Lodi Electric Utility, own shares of the NCPA's electric generation facilities.

Overhead electrical lines are located adjacent to the proposed project site on North Lower Sacramento Road and Kettleman Lane (Highway 12). According to the City of Lodi Westside Facilities Plan, the City is planning on constructing an electrical substation just east of the proposed project site. The substation would service the Westside Area do the City, which includes the proposed project site. It is anticipated that the substation will be the terminus of two new 60 kilovolt circuits mounted on a single pole line, paralleling Kettleman Lane (Highway 12). The substation would also be linked to an existing 60 kV overhead circuit paralleling Lower Sacramento Road. All 12-kilovolt distribution lines from the substation would be placed undergound.

Natural Gas Service

Pacific Gas & Electric (PG&E) provides natural gas procurement, transportation, and storage services to 3.8 million residential customers and 200,000 businesses throughout Northern and Central California. PG&E also provides natural gas to several gas-fired electrical generation plants in its service area. PG&E would provide natural gas services to the proposed project. A natural gas line that is located along North Lower Sacramento Road would serve the project.

Wastewater Services

Wastewater Treatment

The City of Lodi Public Works Department provides wastewater collection and treatment services to the community. The Public Works Department operates the White Slough Water Pollution Control Facility (WSWPCF). Since its construction in 1966, the WSWPCF has been expanded and improved to meet increasingly stringent environmental protection standards. In 1992, the facility was expanded to a design capacity of 8.5 million gallons per day. However, the Regional Water Quality Control Board only permits the facility to operate at 7.0 million gallons per day. According to Fran Forkes, Water and Wastewater Superintendent for the City of Lodi, the WSWPCF currently treats approximately 6.2 million gallons per day. The facility operates at approximately 73 percent of its design capacity and 89 percent of its permitted capacity. The remaining permitted capacity of the facility is anticipated to accommodate growth in the City of Lodi for the next six years. The facility

currently achieves the water quality standards required for the protection of the environmentally sensitive Sacramento-San Joaquin Delta.

Aerial view of WSWPCF

The City of Lodi has prepared a Wastewater Master Plan. The primary objectives of the Wastewater Master Plan are to develop a long-term strategy to treat wastewater generated by future development in the City through the year 2020, and to reliably meet future water quality standards and discharge requirements of the Regional Water Quality Control Board.

Water Recycling and Reuse

The City of Lodi recycles and reuses treated wastewater from the WSWPCF. Local farmers that cultivate feed and fodder crops not intended for human consumption use the recycled water for irrigation. In recent years, the City has also supplied treated wastewater to the NCPA for the operation of their 49-megawatt steam-injected gas turbine plant located near Lodi. Treated wastewater has also been used to replenish mosquito fish-rearing ponds. Treated wastewater that cannot be reused or recycled is stored in holding ponds and further treated before it is discharged into the Delta.

The City utilizes a process called anaerobic digestion to convert solids removed from wastewater into a useful byproduct known as biosolids. This material meets federal regulations for safe use. Biosolids are reused by the City as a nutrient source and soil conditioner on City owned land.

Sanitary Sewer Lines

The City of Lodi Public Works Department maintains over 174 miles of sanitary sewer lines. The sanitary sewer lines convey wastewater from residential, commercial, and industrial uses to the WSWPCF.

An 18-inch sanitary sewer line is located along North Lower Sacramento Road just east of the proposed project site. The 18-inch line flows south and connects to a 42-inch sewer main. The 42-inch sewer main flows southwest to the WSWPCF.

Water Service

The Lodi Water Utility provides drinking water to the citizens and businesses of Lodi. The citizens of Lodi own the Lodi Water Utility. The Lodi Water Utility operates and maintains 25 water wells, over 210 miles of water mains, a water tower, and a million gallon storage tank. The Lodi Water utility delivers water to approximately 22,000 residential, commercial, and industrial customers.

Groundwater is the sole source of water for the City of Lodi. 25 computer controlled wells pump groundwater from the underground aquifer. The wells operate automatically based on water pressure demand. Two new wells are planned for construction to keep up with water demand.

The Lodi Water Utility performs weekly tests throughout the water distribution system for bacterial water quality. The water is periodically chlorinated as a proactive step to help keep the water system

in compliance with water quality standards. In 2001, Lodi's drinking water achieved or exceeded all federal and state water quality standards.

In 2001, 5.449 billion gallons of water were pumped from the groundwater aquifer to meet Lodi's water demand. Water consumption for the year 2002 is anticipated to decrease by approximately 2 percent due to water conservation measures (Fran Forkas, Water and Wastewater Superintendent for the City of Lodi).

Several water lines are located near the proposed project site. These lines include a 10-inch line along South Lower Sacramento Road, a 10-inch line along Kettleman Lane east of South Lower Sacramento Road, and several waterline connections to individual properties.

Storm Drainage

The City of Lodi owns and maintains a variety of storm water facilities, including storm drain lines, inlet catch basins, drainage ditches, and retention and detention facilities. The proposed project site is currently served by an on-site inlet catch basin located in the southeast corner of the site. A lateral storm drain line conveys storm water runoff from the inlet catch basin north to a 42-inch storm drain line. The 42-inch storm drain generally flows to the east and connects to a 60-inch line that flows south along Sylvan Way and Sage Way. The 60-inch line connects to a 48-inch line that flows east along Century Boulevard and discharges into Beckman Park. Beckman Park functions as a storm water detention basin in conjunction with DeBenedetti Park. Storm water that is released from the detention basins ultimately discharges into the Woodbridge Irrigation District Canal.

Solid Waste Disposal

Solid Waste Collection and Disposal

Central Valley Waste Services, a subsidiary of Waste Management, Incorporated, provides solid waste collection services to the City of Lodi. Central Valley Waste Services collects solid waste from properties in the City of Lodi and transports the waste to a Transfer Station and Buy-Back Recycling Center. The waste is then transferred to large haul vehicles that transport the waste to the North County Landfill. *(Source: Christine M. Weid, Recycling and Education Coordinator, Central Valley Waste Services, Telephone Conversation, January 3, 2002).*

View of a Central Valley Waste Services truck

The North County Landfill is a Class III facility that is owned and operated by San Joaquin County. It primarily receives waste from the communities in northern San Joaquin County. The landfill is permitted to accept 825 tons of solid waste per day. On average, the landfill currently receives 400 tons per day. The landfill has a remaining lifetime capacity of approximately 6.0 million tons. The life expectancy of the landfill is approximately 32 years. *(Source: Najee Zarif, Assistant Engineer, San Joaquin County, Public Works Department, Solid Waste Division, Telephone Conversation, January 3, 2003).*

Recycling

Central Valley Waste Services offers a full range of collection, disposal and recycling services to meet the needs of their residential and commercial customers. Commercial customers can contract with the Central Valley Waste Services to provide on-site recycling bins and pick-up services. Cardboard boxes, plastic, aluminum cans, paper products, packaging materials, and other recyclable materials can be sorted at commercial sites. In addition, Central Valley Waste Services also operates a Buy Back Recycling Center that allows customers to drop off recyclable materials, including electronic appliances, computer products, aluminum cans, glass products, metals, yard waste, tires, wood pallets and other recyclable materials. *(Source: Christine M. Weid, Recycling and Education Coordinator, Central Valley Waste Services, Telephone Conversation, January 3, 2002).*

3.11.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

According to the City of Lodi Environmental Checklist Form, a utility and service system impact would occur if the proposed project would result in a need for new systems or supplies, or substantial alterations to the following utility providers:

- Power or natural gas
- Communications System
- Local or regional water treatment or distribution facilities
- Sewer or septic tanks
- Storm water drainage
- Solid waste disposal
- Local or regional water supplies

IMPACT 3.11-A Electrical Services: The proposed project would increase the demand for electrical services from the Lodi Electric Utility. The Lodi Electric Utility has adequate power supplies and electrical facilities to serve the proposed project without compromising its service to existing customers. (Less Than Significant Impact).

The proposed project would require electrical power to operate lights, heating and cooling units, ventilation systems, water heaters refrigeration units, cash registers, office equipment, and other electrical appliances that are typically found in retail shopping centers, grocery stores, and restaurants. The Lodi Electric Utility would provide electrical power to the proposed project site. The site would be served by existing electrical lines on North Lower Sacramento Road and Kettleman Lane (Highway 12). In addition, the City has plans to construct an electrical substation and new 60-kilovolt pole lines in the area to accommodate future development in the vicinity of the site. According to Al Smatsky, Senior Electrical Estimator for the Lodi Electric Utility, the Lodi Electric Utility has adequate electrical supplies available to serve the proposed project without compromising service to existing customers. The project would not require the expansion of existing, or the construction of new, electrical power facilities. Therefore, less than significant impacts related to electrical services would occur.

The project would also be required to comply with Title 24 of the California Building Code. Title 24 establishes building energy efficiency standards for new construction (including requirements for entire new buildings, additions, alterations, and repairs in nonresidential buildings).

> **Mitigation 3.11-A Electrical Services: Impacts related to electrical services are less than significant. Therefore, mitigation measures are not required. (Less Than Significant Impact).**

IMPACT 3.11-B Natural Gas: The proposed project would increase the demand for natural gas. However, PG&E has adequate supplies of natural gas to serve the proposed project without compromising its service to existing customers. (Less Than Significant Impact).

PG&E would provide natural gas services to the proposed project. The project would connect to an existing gas lines located on North Lower Sacramento Road. According to the 2002 Natural Gas Report prepared by the California Gas and Electric Utilities, PG&E anticipates that sufficient supplies of natural gas will be available from a variety of sources at market-competitive prices to meet existing and projected market demands in its service area through the year 2022. According to Steve Okamoto, Industrial Power Engineer for PG&E, there is adequate natural gas supplies available to serve the project and PG&E would have no problems providing services to the site. Therefore, the proposed project would result in less than significant impacts related to natural gas.

> **Mitigation 3.11-B Natural Gas: Impacts related to natural gas services are less than significant. Therefore, mitigation measures are not required. (Less Than Significant Impact).**

IMPACT 3.11-C Wastewater Services: The proposed project would generate wastewater from restrooms, restaurant operations, drinking fountains, and other related uses. The wastewater conveyance and treatment facilities that would serve the proposed project site have the capacity to serve the proposed project without compromising services to existing residential and business customers. (Less Than Significant Impact) .

The proposed project would generate wastewater from typical shopping center operations, including restaurants, bathrooms, drinking fountains, and other related uses. Proposed on-site sewer lines would convey wastewater generated by individual businesses to an 18-inch sewer line located along North Lower Sacramento Road. The 18-inch sewer line flows south and connects to a 42-inch sewer main that flows southwest to the WSWPCF. According to Fran Forkas, Water and Wastewater Superintendent for the City of Lodi, the 18-inch and 42-inch sewer lines are operating well below their capacity. These lines would have more than enough capacity to serve the proposed shopping center.

The WSWPCF currently treats approximately 6.2 million gallons of wastewater per day. The facility is permitted to treat 7.0 million gallons per day. The facility can treat an additional 0.8 million gallons of wastewater per day. According to Fran Forkas, Water and Wastewater Superintendent for the City of Lodi, the WSWPCF has adequate permitted capacity to serve growth and development within the City, including the proposed project, for the next 6 years. In addition, the City of Lodi is currently planning and designing a variety of improvements that will allow the City to increase the permitted

capacity of the WSWPCF from 7.0 to 8.5 million gallons per day. Therefore, less than significant impacts related to wastewater services would occur as a result of the proposed project.

> **Mitigation 3.11-C Wastewater Services: Impacts related to wastewater services are less than significant. Therefore, mitigation measures are not required. (Less Than Significant Impact).**

IMPACT 3.11-D Water Service: The proposed project would increase the demand for water services from the City of Lodi Water Utility. The City of Lodi has adequate water supply and facilities to serve the proposed project. (Less Than Significant Impact).

The City of Lodi 2001 Urban Water management Plan projects the increase in water demand assuming ongoing development as provided in the City of Lodi General Plan. According to Wally Sandelin, City Engineer for the City of Lodi, the water demand associated with the proposed project is substantially in conformance with the forecast water demand under the current General Plan and the 2001 Urban Water Management Plan.

The proposed project site would be served by groundwater. Existing wells and wells that are currently under construction will provide groundwater to the site. According to Mr. Sandelin, the new wells that are under construction will insure the City's ability to serve the water demand of existing customers, the proposed project, and other future projects in the City under normal, single-dry, and multiple-dry water years. Therefore, the Lodi Water Utility would have adequate water supplies to serve the proposed project. Less than significant impacts related to water services would occur as a result of the proposed project.

> **Mitigation 3.11-D Water Service: Impacts related to water services are less than significant. Therefore, mitigation measures are not required. (Less Than Significant Impact).**

IMPACT 3.11-E Storm Water Runoff: The proposed project would increase storm water runoff and would impact off site storm drain utilities that would serve the site. However, the project includes the construction of an on-site detention basin sized to contain the volume of runoff produced by a 48-hour, 10-year storm, per City standards. As a result, the impacts to off-site storm drain utilities would be considered less than significant. (Less Than Significant Impact).

The proposed project would involve the construction of access driveways, parking lots, sidewalks, buildings, and other impervious surface areas. The construction of impervious surfaces on the site would prevent storm water from percolating into the soil. This would increase the amount of storm water runoff from the site and would impact off-site storm drain utilities. However, the project includes the construction of a detention basin on the west side of the property to detain storm water flows from the site prior to release into the City's storm drain system. A Drainage Study was conducted for the project by Phillippi Engineers that determined the sizing of an on-site detention basin to serve the project. Adhering to the City's Standards for Temporary Detention Basins and incorporating information based on a field reconnaissance, the study calculated the size required for the basin. Consistent with City criteria, the 48-hour, 10-year storm (3.3 inches of rainfall) was used as the design standard because the project would utilize the existing 42-inch storm drain line on the

east side of the site and a proposed 30-inch line that crosses the site as an outlet to drain the detention basin. Use of the 48-hour, 100-year storm for design purposes was therefore not required. The rational method was used in the calculations to determine runoff volumes. Runoff coefficients of 0.95 for pavement areas, 0.80 for roof areas, and 0.20 for landscaped areas were used. For purposes of the study, the landscaped areas were assumed to represent approximately 10% of the site area, the roof areas approximately 17%, and the remaining paved areas approximately 73%. The study determined that the minimum volume capacity required for the basin, based on the 48-hour, 10-year storm, would be 10.4 acre-feet. The depth of water necessary to accomplish gravity flow out of the basin (into the storm drain system) would be 5.37 feet, however, by excavating the basin so that it's bottom is 1 – 2 feet below the outfall, rain water from smaller storms would be allowed to accumulate in the basin, effectuating the settling necessary to accomplish storm water pollutant removal. The proposed design of the basin would detain the increased amount of runoff generated from the project site. Therefore, impacts to the existing storm drain system would be considered less than significant.

Mitigation 3.11-E: Impacts related to storm drain utilities are less than significant. Therefore, mitigation measures are not required. (Less Than Significant Impact)

IMPACT 3.11-F Solid Waste Disposal: The proposed project would increase the demand for Solid Waste Disposal Services. However, the North County Landfill has adequate capacity to accept the additional waste generated by the proposed project. (Less Than Significant Impact)

The proposed shopping center would generate solid waste that is typically associated with large retail shopping centers. The amount of solid waste generated by the proposed would depend on a number of factors, including the nature of the businesses, the types of products sold, and the volume of products sold. Therefore, it is difficult to determine how much solid waste the proposed project would generate. However, a general range can be estimated by using waste generation rates. The California Integrated Waste Management Board has collected solid waste generation rates from a variety of sources. Rates for shopping centers, department stores, supermarkets, and food stores range from 2.5 to 3.12 pounds of waste per 100 square feet of floor space per day. By applying these generation rates, the proposed 297,403-square foot shopping center would generate approximately 7,435 to 9,279 pounds (3.7 to 4.6 tons) of solid waste per day. Other sources state that general commercial retail uses would generate 0.046 pounds of waste per square feet of floor space per day. By using this rate, the proposed project would generate approximately 13,681 pounds (6.8 tons) of solid waste per day.

Much of the waste generated by the proposed project, including cardboard boxes, packaging materials, paper products, glass, and aluminum cans, could be recycled. Central Valley Waste Services offers recycling services for commercial customers. Cardboard boxes, plastic, aluminum cans, and other recyclable containers and materials can be placed in mixed recycling bins at commercial sites.

Non-recyclable waste generated by the proposed project would be disposed at the North County Landfill. The landfill is currently operating below capacity, and can accept an additional 425 tons of waste per day. The landfill has the capacity to accept the additional waste generated by the proposed project (estimated at 3.7 to 6.8 tons per day before recycling). In addition, the project would not require the landfill to expand or operate below current standards. Therefore, less than significant impacts would occur as a result of the proposed project. Nonetheless, the following mitigation measures are recommended to minimize the project's impact on the capacity of the landfill:

Mitigation 3.11-F1 Solid Waste Disposal: As a condition of project approval, the property owner or commercial tenants of the proposed project shall be required to contract with Central Valley Waste Services to provide on-site recycling services.

Mitigation 3.11-F2 Solid Waste Disposal: As a condition of project approval, refuse disposal areas on the project site shall be designed with adequate room to accommodate recycling bins in addition to trash bins. The project applicant shall coordinate with Central Valley Waste Services to ensure that this condition is achieved in the final design stage of the project. (Less Than Significant Impact)

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